Gestetner LANIER RICOH savin

Product	Gestetner	Lanier	Ricoh	Savin
B230	DSc525	LD425c	Aficio MP C2500	C2525
B237	DSc530	LD430c	Aficio MP C3000	C3030
D042	DSc520	LD420c	Aficio MP C2000	C2020

Launch Date: 6/09/2006 (B230 / B237)
9/14/2007 (D042)

S/N Configuration: L36XXXXXXXX
L37XXXXXXXX
M50XXXXXXXX

Product Concept

MFP performance closer to BW machine
- Short warm up time: 45sec.
- Shorter first copy output time: BW 6.7/FC 9.7sec
- Minimized cycle down time

High productivity
- High speed color output (B230 25cpm, B237 30cpm, D042 20cpm)
- Newly designed Booklet Finisher
- Larger paper capacity: Max 3,200 sheets
- LCIT refillable while feeding from LCIT itself
- High speed scanning: 50 pages/minute B/W (200dpi)

Outstanding usability
- Newly designed operation panel with full color LCD
- Easy handling paper tray

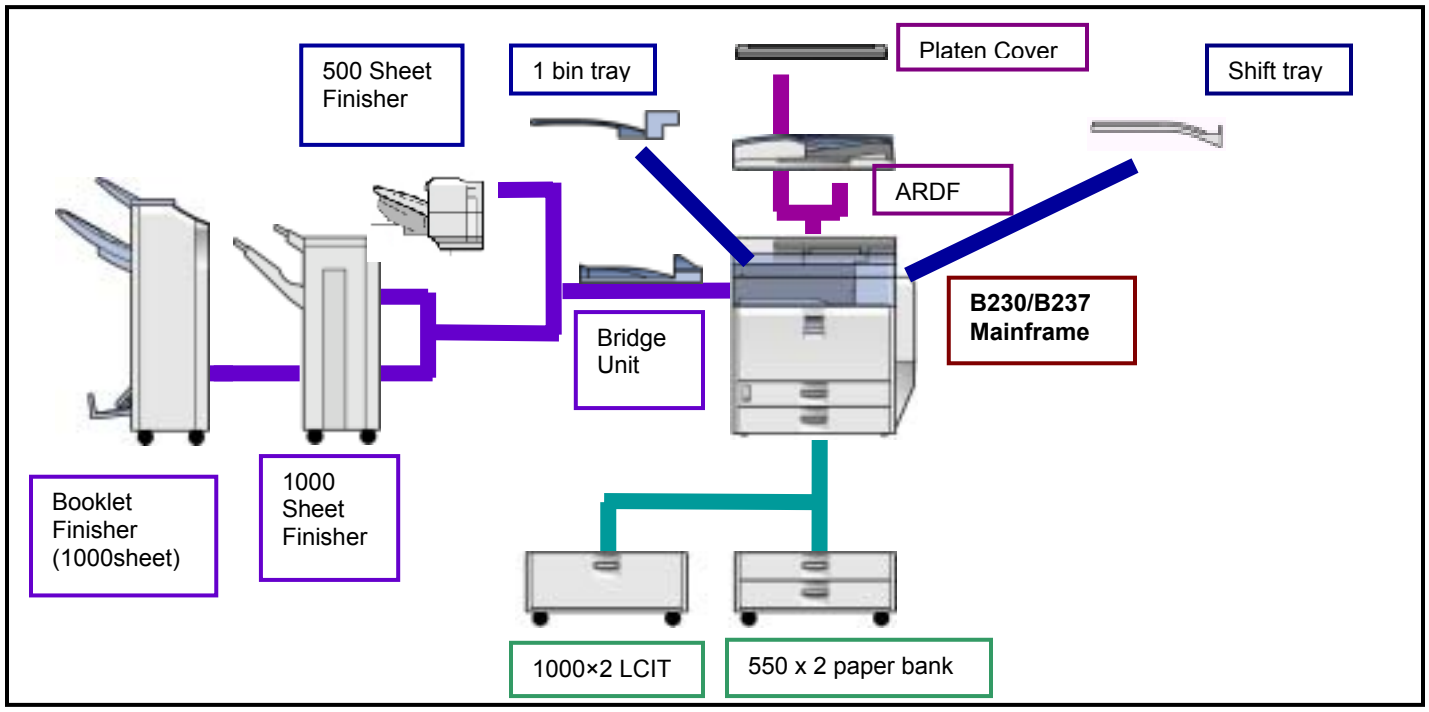
Latest DS functions
- High compression PDF
- Improved operational flow of LDAP search
- Transmission of documents in document server

New technology for higher image quality
- Ricoh PxP Toner™
- 600x600 dpi 4 bit engine (2400dpi equivalent x600dpi)

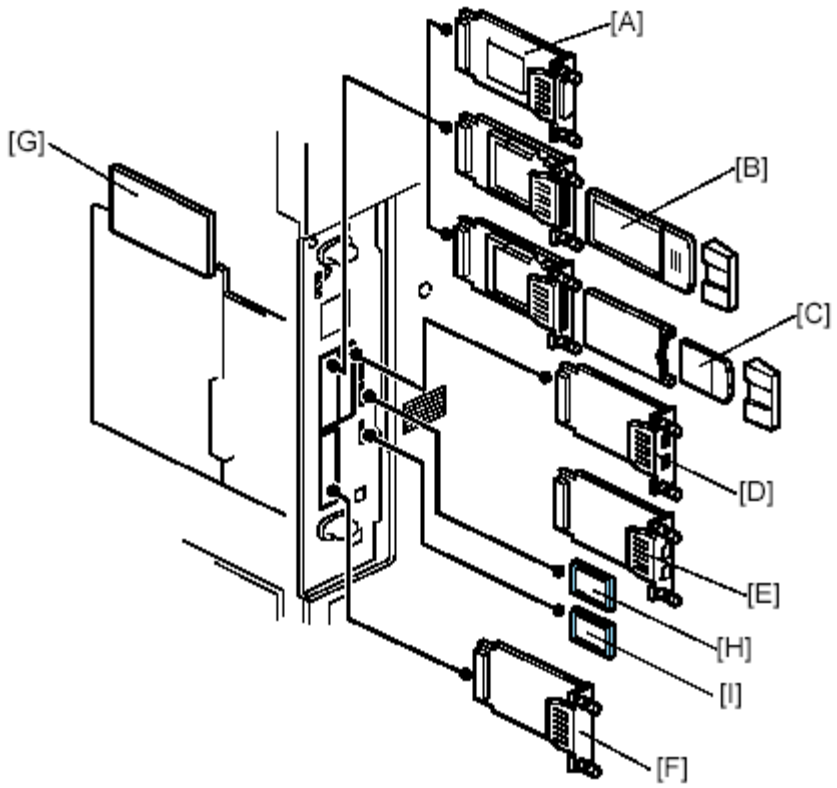
Improved reliability
- Longer PM cycle: 80K prints

Major improvements from previous models (B156 / B202)			
Feature		**B202 B156**	**B230 B237 D042**
General Spec.	Copy / Print Speed (LT LEF)	B202: BW 28ppm, FC 24ppm B156: BW 24ppm, FC 10ppm	B230: BW 25ppm, FC 25ppm B237: BW 30ppm, FC 30ppm D042: BW 20ppm, FC 20ppm
	Warm-up Time	Approx. 99 sec.	Less than 45 sec.
	1st Copy Speed	B202: BW 8 sec., FC 10 sec. B156: BW 7.8 sec., FC 18 sec.	BW 6.7 sec., FC 9.7 sec.
	Max Paper Supply	B202: 3,100 sheets B156: 2,600 sheets	3,200 sheets
	Max Paper Weight (Trays)	B202: 28 lb. Bond B156: 34 lb. Bond (paper bank)	57 lb. (216 gsm)
	Max Paper Weight (Bypass)	B202: 90 lb. Index (163 gsm) B156: 90 lb. Index (163 gsm)	140 lb. Index (257 gsm)
	Max Paper Weight (Duplex)	B202: 28 lb. Bond B125: 28 lb. Bond	45 lb. (169 gsm)
	Toner	B202: Ricoh PxP Toner™ B156: Pulverized Toner	Ricoh PxP Toner™
	Booklet Finisher	B202: Yes B156: No	Yes (Newly designed)
	Control Panel	Standard B/W	Larger, Simplified Full Color LCD
	Thumbnail/Preview viewing	N/A	New
Scanner Features	Scanning Speed (LT LEF, Scan to E-mail)	B202: BW 50ppm, FC 35ppm B156: BW 45ppm, FC 25ppm	BW 50ppm, FC 35ppm (200dpi)
	Scan to URL	N/A	New
	Scan to Folder (Novell)	N/A	New
	High Compression PDF	N/A	New
Print Features	Controller CPU	B202: 600MHz B156: 466MHz	600MHz
	RAM	B202: 1GB B156: 768MB	1GB
	Hold/Stored Print; Store & Print	N/A	New
	Bit Depth	B202/B156: 2-Bit	Up to 4-Bit
	Chaptering	PCL only	RPCS/PCL
	Total Stored Files (Locked/Sample/Stored Print, etc.)	30 files	100 files
	PictBridge Support	N/A	New
PM Interval	PM interval	B202: 52K Print B156: 63.2K Print	80K

Machine Configuration



Item	Product Name	Product #
Mainframe	See page 1	B230
Mainframe	See page 1	B237
Mainframe	See page 1	D042
ARDF	DF3000	B789
2 tray bank	PB3000	B800
LCIT	PB3010	B801
Inner 1bin tray	BN3000	B790
Bridge Unit	BU3000	B227
Internal Shift Sort Tray	SH3000	B791
1000 sheet Booklet Finisher	SR3000	B793
Punch Unit US3/2 hole	PU3000NA	B807
1000 sheet Finisher	SR790	B408
500 sheet Finisher	SR3010	B792
Cabinet (not shown)	FAC33	5K6107
Fax Option (not shown)	Type C3000	B786
G3 Option (not shown)	Type C3000	B787



Item	Type	Product Number	Letter	Remarks
USB 2.0	-	-	-	Standard
Ethernet	-	-	-	Standard
IEEE 1284	Type A	B679	[A]	Only 1 can be installed at a time.
IEEE 802.11b	Type H	G813	[B]	
Bluetooth	Type 3245	B826	[C]	
USB Host	Type A	B825	[D]	Only 1 can be installed at a time.
IEEE 1394	Type B	B581	[E]	
File Format Converter	Type D	B609	[F]	
Hard Disk Drive	-	-	-	Standard
Copy Data Security Unit	Type C	B770	[G]	
PostScript 3	Type C 3000	B822	[H]	Only one of these can be installed in to SD slot 2 at time. See Note 1
Data Overwrite Security Unit	Type D	B735		
PictBridge	Type A	B824		

Note 1: PictBridge and the Data Overwrite Security Unit can both be installed to the PostScript 3 option if necessary using the AppliMove function. This will allow all three options to be used.

Order Numbers / Mainframe

Mainframe / Version	Gestetner	Lanier	Ricoh	Savin	EDP/Order #
B230 Scan Print	DSc525	LD425c	Aficio MP C2500	C2525	413216
B230 Scan Print Fax	DSc525spf	-	Aficio MP C2500 SPF	C2525spf	413217
B237 Scan Print	DSc530	LD430c	Aficio MP C3000	C3030	413218
B237 Scan Print Fax	DSc530spf	-	Aficio MP C3000 SPF	C3030spf	413219
B230 GSA	DSc525g	-	Aficio MP C2500G	C2525g	413108
B237 GSA	DSc530g	-	Aficio MP C3000G	C3030g	413109
D042 Scan Print	DSc520sp	LD420c	Aficio MP C2000	C2020g	414223
D042 Scan Print Fax	DSc520spf	LD420spf	Aficio MP C2000 SPF	C2020spf	414224
D042 GSA	DSc520g	LD420cg	Aficio MP C2000G	C2020g	414184

Order Numbers

Item	Product name / Type	Product #	EDP Code	Lanier Order #
ARDF (Standard)	DF3000	B789	412842	216-7156
2 tray bank	PB3000	B800	412844	216-7157
LCT (2000 sheets)	PB3010	B801	412846	216-7158
Inner 1bin tray	BN3000	B790	412849	216-7159
Bridge Unit	BU3000	B227	412880	216-7160
Internal Shift Sort Tray	SH3000	B791	412850	216-7161
1000 sheet Booklet Finisher	SR3000	B793	412851	216-7162
Punch Unit US 3/2 hole	PU3000NA	B807	412855	216-7163
1000 sheet Finisher*	SR790*	B408	412730	479-1333
500 sheet Finisher	SR3010	B792	412858	216-7166
Cabinet	FAC33	5K6107	413762	216-7185
Fax Option	Type C3000	B786	413220	216-7167
Fax Stamp Ink	Marker Type 30	H903	334049	481-0147
SAF Memory 32MB	Type B	G578	001342MIU	481-0174
Handset	Type 1018	B433	410781	481-0393
G3 Option	Type C3000	B787	412864	216-7168
PS3 Option	Type C3000	B822	412879	216-7169

Item	Product name / Type	Product #	EDP Code	Lanier Order #
PictBridge Option	Camera Direct Print Card Type A	B824	412868	216-7170
Wireless Lan 802.11b	Type H	G813	402378	481-0393
IEEE 1284	Type A	B679	411699	481-0907
Data Overwrite Security Unit	Type D	B735	412152	491-0245
File Format Converter	Type D	B609	413421	481-7053
VM Card	Type C	B861	413210	481-7072
Bluetooth	Type 3245	B826	412866	481-0683
USB Host Interface	Type A	B825	412867	481-7057
Optional Counter Interface Unit	Optional Counter Interface Unit Type A (required to attach 20 pin card reader system)	B870	413012	216-7186
Copy Data Security	Copy Data Security Unit Type A	B770	412320	481-0933

***Note:** The newer version of the SR790 contains the proper brackets to attach to the mainframe. The SR790 is compatible after the following Serial Number: J1067501188. SR790's produced after the serial number cut in will have two dots printed on the carton after the model number.

Toner, Staple Yield / Order Numbers					
Item	Yield	Gestetner	Lanier	Ricoh	Savin
Cyan Toner	15k	888663	480-0379	888639	888659
Magenta Toner	15k	888662	480-0380	888638	888658
Yellow Toner	15k	888661	480-0381	888637	888657
Black Toner	20k	888660	480-0378	888636	888656
Staple Set Cartridge SR3000	5k	413118	480-0391	412874	412877
Staple set Cartridge SR3010	5k	410805	-	410801	410803
Staple refill Cartridge SR3000/SR3010	5k x 3	410806	-	410802	410804

Installation Requirements

1. Temperature Range: 50°F to 89.6°F
2. Humidity Range: 15% to 80% RH
3. Ambient Illumination: Less than 1500 lux (do not expose to direct sunlight)
4. Ventilation: 3 times/hr/person or more
5. Do not let the machine get exposed to the following:
    a. Cool air from an air conditioner
    b. Heat from a heater
6. Do not install the machine in areas that are exposed to corrosive gas
7. Install the machine at locations lower than 8,200 ft. above sea level
8. Install the machine on a strong, level base
9. Do not install the machine in areas that get strong vibrations

Machine level

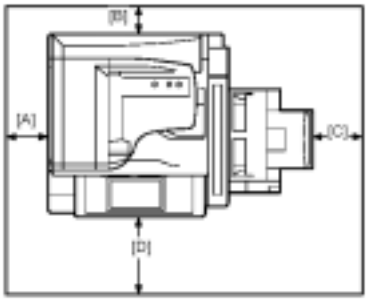
Front to back: Within 5mm
Right to left: Within 5mm

Power Requirements

1. Input voltage level: 120 V, 60Hz More than 12 A Outlet: NEMA 5-15 R
2. Permissible voltage fluctuation: ±10%
3. Do not place anything on the power cord

Machine Space Requirements

Place the machine near the power source with the clearance as shown.



A: Over 3.9”
B: Over 3.9”
C: Over 20”
D: Over 30”

Transporting The Machine

1. Confirm that the Image Transfer Belt is in its correct position. Otherwise the Image Transfer Belt and the Black PCU can be damaged.
2. Remove the toner cartridges. This prevents toner flow into the toner supply tube that may be caused by vibration during transport. This prevents the tube from becoming clogged.
3. Make sure there is no paper left in the paper trays. Then fix down the bottom plates with a sheet of paper and tape.
4. Empty the toner collection bottle. Then attach securing tape to stop the toner bottle from coming out.
5. Do one of the following:
    a. Attach shipping tape to the covers and doors.
    b. Shrink-wrap the machine tightly.

Note:
1.) To optimize color registration perform “Auto Color Registration” in User Program Modes or “Forced Line Position Adj. Mode a” (SP2-111-1) after the machine is moved. If it fails, perform the “Forced Line Position Adj. Mode c” (SP2-113-3), then try “Forced Line Position Adj. Mode a” again.
2.) Confirm that the side fences in the trays are correctly positioned to prevent color registration errors.

Installation Times

Item	Time/minutes	Item	Time/minutes
Main Frame	30 minutes	Data Overwrite Unit	10 minutes
Finisher	15 minutes	PostScript3	5 minutes
Punch Kit	15 minutes	Wireless LAN	5 minutes
Fax	15 minutes	IEEE 1284	5 minutes
Paper Bank/LCT	10 minutes	IEEE 1394	5 minutes
Bridge Unit	10 minutes	Blue Tooth	5 minutes
Shift Tray	10 minutes	USB Host	5 minutes
1-bin Tray	10 minutes	PictBridge	5 minutes
File Format Converter	10 minutes		

B230 / B237 / D042		
Configuration		Desk Top
Original scanning		One-dimensional solid scanning through CCD
Copy process		Dry electrostatic transfer system
Development		Dry two-component magnetic brush development system
Fusing		Belt pressure system
Original Type		Sheet / Book / Object
Original Size		Max: 11”x17” (DLT)
Thickness of Original		Less than 30mm / Less than 5kg
Scan Resolution		600dpi / 256gradations
Copy/Print Resolution		Copy: 600dpi /4bit, Print: 600dpi/4bit, 2bit, 1bit
Max Image-able Area:		12”x18” / 297x432mm
Recommended Paper Size	1st Paper Tray	11”x8 ½”(LT) LEF
	2nd Paper Tray, Paper Bank Feed	11”x17” (DLT) SEF 8 ½”x14” (LG) SEF 8 ½”x11” (LT) LEF/SEF 7 ¼”x10 ½” (Executive) SEF/LEF 8”x13” (F) SEF 8 ½”x13” (Foolscap) SEF 8 ¼”x13” (Folio) SEF
	Bypass Tray Feed	12”x18” SEF 11”x17” (DLT) SEF 8½”x11” (LT) LEF/SEF 8”x13”(F) SEF 8 ½”x14” (LG) SEF 7 ¼”x10 ½” (Executive) LEF/SEF 8 ½”x13” (Foolscap) SEF 8 ¼”x13” (Folio) SEF
	LCT	8 ½”x11” (LT) LEF
Auto Original Size Detection	Exposure Glass	11”x17” (DLT) SEF 8 ½”x14” (LG) SEF 8 ½”x11” (LT) LEF/SEF
	ARDF	11”x17” (DLT) SEF 8 ½”x14” (LG) SEF 8 ½”x11” (LT) LEF/SEF 5 ½”x8 ½” (HLT) LEF/SEF
Paper Weight	Standard Tray	16-57lbs / 60-216 g/m^2
	Bypass Tray	16-67lbs / 60-253 g/m^2
	Paper Bank	16-57lbs / 60-216 g/m^2
	Duplex Unit	17-45lbs / 64-169 g/m^2

Machine Specifications

B230 / B237 / D042			
Copy Speed (ARDF 1to1)	D042	FC: 20cpm / BW: 20cpm (LT/A4 LEF) FC: 9cpm / BW: 9cpm (DLT/A3) FC: 21cpm / BW: 21cpm (B5/A5 LEF) FC: 11cpm / BW: 11cpm (B4) FC: 11cpm / BW: 11cpm (LG) OHP/Thick Paper(over105gsm): 16cpm (LT/A4 LEF, FC/BW)	
	B230	FC: 25cpm / BW: 25cpm (LT/A4 LEF) FC: 13cpm / BW: 13cpm (DLT/A3) FC: 27cpm / BW: 27cpm (B5/A5 LEF) FC: 14cpm / BW: 14cpm (B4) FC: 15cpm / BW: 15cpm (LG) OHP/Thick Paper(over105gsm): 16cpm (LT/A4 LEF, FC/BW)	
	B237	FC: 30cpm / BW: 30cpm (LT/A4 LEF) FC: 15cpm / BW: 15cpm (DLT/A3) FC: 34cpm / BW: 34cpm (B5/A5 LEF) FC: 17cpm / BW: 17cpm (B4) FC: 18cpm / BW: 18cpm (LG) OHP/Thick Paper(over105gsm): 16cpm (LT/A4 LEF, FC/BW)	
Copying Speed (Simplex to duplex)	Copying Speed (Simplex to duplex)	D042	FC:20cpm/ BW:20cpm(LT/A4 LEF)
		B230	FC: 25cpm /BW: 25cpm(LT/A4 LEF)
		B237	FC: 30cpm /BW: 30cpm(LT/A4 LEF)

B230 / B237 / D042					
1st Copy Time (LT/LEF from 1st tray)			FC: 9.7sec. / BW: 6.7sec.		
Warm-up Time			Less than 45sec.		
Multiple Copying			Up to 999copies		
Reproduction Ratio			7 Reduction & 5 Enlargement 400%, 200%, 155%, 129%, 121%, 100%, 93%, 85%, 78%, 73%, 65%, 50%, 25%		
Zoom			From 25% to 400% in 1% step		
Paper Feeding Capacity (80g/m2 paper)		Standard	550sheet x 2trays Bypass Tray: 100sheets (less than 10mm)		
		Option	Paper Bank Unit: 550sheet x 2 trays or LCT: 2,000sheets		
		Max. Paper Feeding Capacity	3,200sheets (with LCT)		
Paper Output Capacity (80g/m2 paper)		Standard	Face Down: 500 sheets		
		Option	1 Bin Tray: 125 sheets Shift Sort Tray: 250 sheets (larger than LT) 500 sheet Finisher: 500 sheets 1000 sheet Finisher: 1000 + 250 sheets Booklet Finisher: 1,000 + 100 sheets		
		Max. Paper Output Capacity	1,500 sheets (with 1,000 sheet Finisher and Bridge Unit: 1,000 + 250 +250 = 1,500))		
Thick Paper Productivity	Model	Mode	Paper Thickness (g/m2)	BK CPM	FC CPM
	C1k	Thin Paper*1	□	20	20
		Plain Paper	-81	20	20
		Middle Thick	-105	20	20
		Thick Paper 1	-169	16	16
		Thick Paper 2	-220	16	16
		Thick Paper 3	-256	16	16
	C1a	Thin Paper*1	□	25	25
		Plain Paper	-81	25	25
		Middle Thick	-105	25	25
		Thick Paper 1	-169	16	16
		Thick Paper 2	-220	16	16
		Thick Paper 3	-256	16	16
	C1b	Thin Paper*1	□	30	30
		Plain Paper	-81	30	30
		Middle Thick	-105	30	30
		Thick Paper 1	-169	16	16
		Thick Paper 2	-220	16	16
		Thick Paper 3	-256	16	16
Power Source		US model	120V 60Hz 12A		
Max. Power Consumption			1,440W (Full Configuration)		
Paper Volume Indicator			Standard Tray: 5 Levels (0%, 10%, 30%, 70%, 100%) Bypass: 2 Levels (Exist, Not exist) Paper Bank Unit: 5 Levels (0%, 10%, 30%, 70%, 100%) LCT: Right Side Tray: 5 Levels (0%, 6%, 32%, 67%, 100%) Left Side Tray: 4 Levels (0%, 30%, 67%, 100%)		
Dimension (Width x Depth x Height)			650 x 659 x 740mm (Standard) 650 x 659 x 1,000mm (with 2-Tray Paper Bank)		
Machine Weight			Less than 264.5lbs (with ARDF)		
CSS			Option		
Counter			Electronic counter (Mechanical counter available as a service option for NA model)		

B230 / B237 / D042			
Sound Power Level (Mainframe only)	Standby	B230: Less than 40 dB B237: Less than 40 dB	
	Copying	B230: Less than 65 dB B237: Less than 67 dB	
Sound Power Level (Complete System)	Standby	B230: Less than 44 dB B237: Less than 44 dB	
	Copying	B230: Less than 70 dB B237: Less than 70 dB	
Sound Pressure Level (Mainframe only)	Standby	B230: Less than 34 dB B237: Less than 34 dB	
	Copying	B230: Less than 59 dB B237: Less than 61 dB	
Sound Pressure Level (Complete System)	Standby	B230: Less than 38 dB B237: Less than 38 dB	
	Copying	B230: Less than 64 dB B237: Less than 64 dB	
Image Density	Auto Density Selection Manual: 9 levels		
Auto Tray Switch	Yes		
Image Rotation	Yes		
Electronic Sort		With Finisher	Without Finisher
	Electronic Sort (w/o shift)	No	Yes
	Rotate Sort	Yes	Yes
	Shift Sort	Yes	No
Electronic Stack	Yes		
Stapling	Yes (with Finisher)		

B230 / B237 / D042	
Image Adjustment	Sharp / Soft: 7 levels
	Contrast: 9 levels
	Background Density Adjustment: 9 levels
	Under Color Removal (UCR) Adjustment: 9 levels
	Auto Color Selection Sensitivity Adjustment: 5 levels
	Text & Photo Separation Sensitivity Adjustment: 9 levels
	Color Erase Sensitivity Adjustment: 5 levels
Program	10 programs
User Code	8 digits / 500 user codes
Interrupt Copy	Yes
Auto Start	Yes
Job Preset	Yes (8 job)
Sample Copy	Yes
Document Server	Yes
Auto Off Timer	Yes (Default: 45min. / 10sec. -240min.)
Energy Saver Timer	Yes (Default: 15min. / 1-240min)
Panel Off Timer	Yes (Default: 1min. / 10sec. -240min.)
System Reset Timer	Yes (Default: 60sec. / 10-999sec.)

	Power Consumption	Auto Switch	Recovery Time
Auto Off Timer	8W	Default: 45min. 1min. -240min.	Approx 45 sec.
Energy Saver Timer	99W	Default: 15min. 1-240min	Approx 20 sec.
Panel Off Timer	207W	Default: 1min. 10sec. –999sec.	3 sec. or 10 sec. can be selected

Printer			
CPU			RM7035C-600MHz
RAM	Std.		1024MB *1 (DDR SDRAM-DIMM (PC-2100)
Hard Disk Drive	Std.		40GB *1
PDL	Std.		RPCS, PCL5c, PCL6
	Option		Adobe PostScript3
Print Resolution	Max.		600 x 600 dpi / 4bit (= 2400 dpi equivalent x 600 dpi)
	Printing modes in driver	PCL5c	-300 x 300 dpi (available only with B/W mode) -600 x 600 dpi <Gradation *4> Fast (1bit) / Standard (2bit) / Fine (4bit)
		PCL 6	600 x 600 dpi <Gradation *4> Fast (1bit) / Standard (2bit) / Fine (4bit)
		RPCS	300 x 300 dpi / 600 x 600 dpi / 1800 equivalent x 600 dpi / 2400 equivalent x 600 dpi
		PS3	600 x 600 dpi <Gradation *4> Fast (1bit) / Standard (2bit) / Fine (4bit)
Fonts	Std.		PCL: 46 fonts (Truetype: 10 fonts, Intelli: 35 fonts, Bitmapped:1 font) + International fonts: 13 Intellifonts *2
	Option		PS3: 136 Roman fonts
Connectivity	Host Interface	Std.	Ethernet (RJ-45 network port: 10Base-T/100Base-TX), USB2.0
		Option	USB Host I/F (PictBridge), IEEE1284/ECP, IEEE1394, Wireless LAN (IEEE802.11b, WPA support), Bluetooth
	Network Protocol		TCP/IP (IP v4, IP v6), IPX/SPX, SMB, Apple Talk (Auto Switching)
	MIB support	Standard MIB (SMNP Printer MIB)	MIB-II (RFC1213), HostResource (RFC1514), PrinterMib (RFC1759)
		Private MIB	Ricoh Original
	Network/Operating Systems *3		Windows 95/98SE/NT4.0/2000/Me/XP/Server 2003 Netware 3.12, 3.2, 4.1, 4.11, 5.0, 5.1, 6, 6.5 Unix; Sun Solaris, HP-UX, SCO OpenServer, RedHat Linux, IBM AIX Mac OS 8.6-9.2x, OS X 10.1 or later SAP R/3, NDPS Gateway IBM iSeries/ AS/400 using OS/400 Host Print Transform

Scanner		
Optical Resolution	100 / 200 / 300 / 400 / 600/1200* dpi Default = 200dpi *only BW TWAIN	
Scan Speed	BW: 50 pages/minute (LT LEF / 200dpi) FC: 35 pages/minute (LT LEF / 200dpi)	
Auto scan size detection	Contact Glass	11”x17” (DLT) SEF, 8 ½”x14” (LG) SEF 8 ½”x11” (LT) LEF/SEF
	ARDF	11”x17” (DLT) SEF 8 ½”x14” (LG) SEF 8 ½”x11” (LT) LEF/SEF 5 ½”x8 ½” (HLT) LEF/SEF 8 1/2"×13" (Foolscap) SEF 10”x14” SEF 11”x15” SEF (detected the same as DLT SEF Default = DLT SEF) 8”x10”SEF (detected the same as LT SEF Default = LT SEF) 7 1/4”x10½”(EXE) LEF/SEF
Scan Area	Main Scan: 297mm, Sub Scan: 432mm	
sRGB Support	Option (With Optional File Format Converter)	
Network Interface	Ethernet 10/100BaseTX, IEEE 1394/IP over, Wireless LAN (802.11b)	
Protocol	Network: TCP/IP Sending E-mail: SMTP, POP3 Scan to Folder: SMB, FTP, NCP	
Compression Method	BW: TIFF (MH, MR, MMR) Grayscale, Full color: JPEG	
Scan Mode	Standard: BW Text/Line Art, BW Text, BW Text/Photo, BW Photo, BW Grayscale, FC Photo, FC Text Optional: ACS (With Optional File Format Converter)	
Image Density	Auto Density Selection (Effective only in BW and Grayscale scan mode) Manual: 7 levels (Effective in BW/Grayscale and FC scan mode)	
Image Rotation	Yes	
SADF / Batch Mode	Yes (Default = SADF)	
Mixed Size Mode	Yes	

*1) Shared with other features (Copy, Fax, Scanner)
*2) Cyrillic (Russian), Greek, Hebrew and Arabic are included in International Fonts.
*3) Detailed Version information is TBA.
*4) With the combination of ‘Resolution’ and ‘Gradation’ settings in printer drivers, the variation of print resolution as listed below.

Settings from Printer Driver			
Resolution	600dpi	600dpi	600dpi
Gradation	Fast	Standard	Fine
Result	600 x 600dpi (1bit)	600 x 600dpi (2bit)	600 x 600dpi (4bit)

Scan to E-Mail			
Requirement		SMTP (Mail Server) Gateway and TCP/IP	
Authorization function		SMTP authentication POP before SMTP authentication	
Resolution		100dpi, 200dpi (Default), 300dpi, 400dpi, 600dpi	
MAX E-mail address# in HDD		2,000 addresses	
Register Group address in HDD		Max. 100 Group (Max. 500 addresses in one group address)	
Maintain E-mail address in HDD		Direct input on operation panel, Web Image Monitor, Smart Net Monitor for Admin	
Input of destination E-mail address via soft key		Possible, Max. 65 destinations per job	
Search E-mail address in HDD		By name and E-mail address	
LDAP Search		Yes	
Max. address numbers per send		Max. 500 addresses per send *1	
Address numbers per send		Address from HDD address book *1	Max. 500
		Address directly input via soft key *1 *2	Max. 100
		Address looked up via LDAP *1 *2	Max. 100
Attention		To, cc, bcc	
Subject	Manual Input	Max. 128 Characters via soft key	
	Pre-register by user	22 subjects. Max. 20 Characters per a subject	
Body Message	Manual Input	Max. 80 Characters via soft key	
	Pre-register by user	5 body messages. 80 characters x 5 lines per a body message Title name of the body message: Max. 20 characters per a name	
	Preset	Message: “This e-mail included attached file sent from xxxx(machine model name).”	
E-mail Size (with restriction)		64 - 102,400KB, Default = 2,048KB	
E-mail Size (w/o restriction)		725MB	
File type		Single Page TIFF/JPEG, Single Page PDF, Multi Page TIFF, Multi Page PDF, High Compression PDF	
Program User Setting		Yes (up to 10 programs)	
Divide and send e-mail		Yes (By page or size) / No, Default = Yes(By size) *3	
Resend		Yes / No, Default = Yes	

*1: Address from HDD address book + Address input via soft key + Address looked up via LDAP = Max.500.

*2: Address directly input via soft key + Address looked up via LDAP = Max. 100.

*3: If the sent file size exceeded the maximum E-mail size, it would be divided to multiple sending. In addition, the sent files might not be accepted by the receiving side due to the limitation in the receiving capacity at the receiver SMTP server or E-mail software setting.

Scan to Folder	
Protocol Support	SMB (Server Message Block), FTP (File Transfer Protocol)
Security	Client folder log-in (log-in name and password) Encryption of log-in name and password during transmission
Resolution	100dpi, 200dpi (Default), 300dpi, 400dpi, 600dpi
Register client folder address in HDD	Max. 2,000 folders
Maintain client folder address in HDD	Direct input on operation panel, WebImageMonitor, SmartNetMonitor
Destination client folder Address input via soft key	Yes SMB: Network path -> User account -> Password FTP: Server -> Network path -> User account -> Password NCP: Network path -> User account -> Password->Bindery or NDS
Search client folder	SMB: Browsing directly to the designated folders FTP: By client folder name NCP: Browsing directly to the designated folders
Max. client folder numbers per send	Max. 50 client folders / PCs per send
Group address	Max. 100 destinations (To Folder: 50, To E-mail: 100) (*1) e.g. 100 destinations 50 folders included >>>OK 100 destinations 51 folders included>>>Failure
Input Subject	No
Scan File Size	No limitation (Depends on PC HDD and memory.)
File Size when combined Scan to Folder & Scan to E-mail	64 - 102,400kB, Default = 2,048KB (With restriction) 725MB (Without restriction) (Scan to E-mail file size applied).
File type	Single Page TIFF/JPEG, Single Page PDF, Multi Page TIFF, Multi Page PDF
Program User Setting	Yes (up to 10 programs)
Dividing file in Scan to E-mail	Yes (By page or size) / No, Default = Yes(By size) (When Scan to PC combine with Scan to E-mail)
Resend	Yes / No, Default = Yes

(*1) User can send to Max. 100 destinations in the same group. But the number of folders has to be less than 50, since Max. folder destinations are 50. If there are more than 50 folder destinations registered in the Group address, a message pops up.

Network Twain Driver	
OS	Windows 95, 98/98SE, ME Windows NT Server 4.0 (SP5 or later), 2000Server Windows XP
Resolution	100 – 1200dpi (Black and White / Grayscale) 100 – 1200*dpi (Full Color) *1200dpi: A6 and smaller
Scan Mode	Standard / Photo / OCR / Filing
Image Adjustment	Brightness / Contrast / Threshold /Gamma Adjustment / Halftone Pattern
Stamp	Date / Page Number / Text
Endorse	Supported

Fax		
Circuit	PSTN, PBX	
Compatibility	ITU-T (CCITT) G3, Additional G3 (option),	
Resolution	8 x 3.85 line/mm, 200 x 100dpi (std.), 8 x 7.7 line/mm, 200 x 200dpi (std.), 8 x 15.4 line/mm, 16 x 15.4 line/mm, 400 x 400dpi (with optional SAF memory)	
Compression method	MH, MR, MMR, JBIG	
Scanning speed (DF Used)	0.7sec (LT SEF, Standard/Detail mode) 1.3sec (LT SEF, Super Fine mode) *ITU-T No1 chart, 200 x 100 dpi (Standard mode) 200dpi(Detail mode), 400dpi(Super Fine mode)	
Number of Pages Scanned (DF Used)	LT SEF	Standard mode: 44 cpm Detail mode: 44 cpm Super Fine mode: 34 cpm
	LT LEF/image rotation	Standard mode: 50 cpm Detail mode: 50 cpm Super Fine mode: 26 cpm
Modem speed	33.6K – 2,400bps (G3, Standard with Automatic Shift Down) (33600, 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, 2400 bps)	
Transmission speed	G3: Approx.2 seconds (200x100 dpi, JBIG, ITUT #1 chart TTI off, memory transmission) G3: Approx.3 seconds (200x100dpi, MMR, ITUT #1 chart, TTI off, memory transmission)	
SAF Memory Size	Standard	4MB (Approx.320 pages)
	With Optional SAF Memory	28MB (Approx. 2,240 pages)
Page Memory Size	Standard	4MB
	With Optional SAF Memory	8MB
	Option: 32MB SD-RAM (28MB SAF Memory + 4MB Page Memory)	
Memory backup	One hour	
Smoothing	Standard	
TTI/RTI	Standard	
CSI	Standard	
Quick dial/ Speed dial	Standard: 2,000 numbers	
Group dial	Standard: 100 groups (500 numbers per 1 group)	
Program	Standard: 100 numbers	
Redial	Standard	
Direct fax number entry	Standard	
Dual access	Standard	
User Code	Std. 100 Codes (Max. 500 codes with optional “User Account Enhance Unit”)	
Page counter	Standard	
Auto reduction	Standard	
Wild cards	Standard	
Summer time (day light saving time)	No	
ID code programming	Standard (4 digits)	
Programming by OMR	No	
User function key	Standard (3 keys)	
Night timer	No	
Energy saver	Standard	
LCD prompt	Standard	
Remaining memory indication	Standard	
Clock adjustment	Standard	

Fax	
User parameter setting	Standard
User data transfer	Standard

Internet Fax	
Requirement of Mainframe	G3 fax option is required. Printer Scanner option is required.
Number of Address	2,000 HDD storage
E-mail Address Input	From LCD operation panel, Web Image Monitor, Smart Device Monitor for Admin
Attention	“to” or “bcc” (select only one), max 500 attentions
Destination Combination	Internet Fax + G3 Fax, Internet Fax to PC + G3 Fax
Network	LAN: Local Area Network Ethernet/10Base-T, 100Base-TX, IEEE1394 (IP over 1394), IEEE802.11b (wireless LAN)
Transmit function	E-mail
Scan line density	200 x 100 dpi (Standard character), 200 x 200 dpi (Detail character), 200 x 400 dpi (Fine character: optional) *1, 400 x 400 dpi (Super Fine character: optional) *1
Communication Protocols	Transmission: SMTP, TCP/IP Reception: POP3, SMTP, IMAP4, TCP/IP
E-mail format	Single/Multi-part, MIME Conversion Attached file forms: TIFF-F(MH, MR *1, MMR*1 compression)
Authentication method	SMTP-AUTH, POP before SMTP, A-POP
Internet communication	Send and receive e-mail with a computer that has an e-mail address
E-mail send functions	Automatic conversion of sent documents to e-mail format and e-mail transmission. Memory transmission only.
E-mail receive functions	Automatic detection and printing of appended TIFF-F (MH) files and ASCII text. Memory reception only.

Lan Fax	
Paper Size	Letter, Legal
Resolution	-Super Fine (400 x 400 dpi) -Detail (200 x 200 dpi) *default -Standard (200 x 100 dpi)
Gray Scale (Available only for Win95/98/Me Driver)	-Off -On normal *default -On lighter
Number of Address	500
OS	Windows 95/98, Windows Me, Windows NT4.0, Windows2000, Windows XP (Gray Scale is only available for the driver of Windows 95/98, Me)
LAN-Fax Editor support language	1.English, 2.German, 3.French, 4.Italian, 5.Spanish, 6.Dutch, 7.Swedish, 8.Norwegian, 9.Danish, 10.Finnish, 11.Hungarian, 12.Czech, 13.Polish, 14.Portuguese, 15.Russian, 16.Korean, 17.Traditional Chinese, 18.Simplified Chinese Condition: OS need to have the same language.
Memory	Minimum required for each OS
CPU	Minimum required for each OS
HDD	Minimum required for each OS

IP-Fax Specification	
Network	LAN: Local Area Network Ethernet/10base-T, 100base-TX, IEEE1394 (IP over 1394), IEEE802.11b (wireless LAN)
Scan line density	8 x 3.85 lines/mm, 200 x 100 dpi (Standard character), 8 x 7.7 lines/mm, 200 x 200 dpi (Details character), 8 x 15.4 lines/mm (Fine character: optional expansion memory required), 16 x 15.4 lines/mm, 400 x 400 dpi(Super Fine character: optional expansion memory required)
Original size	Maximum 11" x 17" (DLT)
Transmission protocol	Recommended: T.38Annex, TCP, UDP/IP communication, SIP (RFC 3261 compliant), H.323 v2
Compatible machines	IP-Fax compatible machines
IP-Fax transmission function	Specify an IP address and send faxes to an IP-Fax compatible fax through a network. Also capable of sending faxes from a G3 fax connected to a telephone line via a VoIP gateway.
IP-Fax reception function	Receive faxes sent from an IP-Fax compatible fax through a network. Also capable of receiving faxes from a G3 fax connected to a telephone line via a VoIP gateway

Document Server	
Items	Capability
HDD Capacity	40GB (Shared with other functions)
HDD capacity for Document	16.8 GB
Maximum stored documents	1,000 documents
Maximum pages per documents	2,000 page
Maximum pages of all stored documents	2,000 sheets

ARDF – DF3000 (Standard)		
Original Size	Simplex	5 ½"x 8 ½ " LEF/SEF (HLT) – 11"x17" (DLT) Vertical: 5.1"-11.7" Horizontal: 5.1"- 49.6" (5.1"-17.0" / for copy & scanner function)
	Duplex	5 ½"x 8 ½ " LEF/SEF – 11"x17"
Original Weight	Simplex	11-34lbs / 40-128g/m^2
	Duplex	14-28lbs / 52-105g/m^2 DLT: 17-28lbs 64-105g/m^2
Stack Capacity		50 sheets with 22lbs / 81.4g/m^2 paper
Power Consumption		Less than 50 W
Dimensions (W x D x H)		21.7"x19.3"x4.7
Weight		Less than 22.1lbs

Paper Feed Unit – PB3000	
Paper Size	8.5" X 11" (LT) LEF – 11"x17"(DLT)
Paper Weight	16-57.5lbs / 60-216g/m^2
Paper Capacity	1,100sheets(550 sheets x 2 trays with 80g/m^2 paper)
Power Consumption	Less than 50W (Power is supplied from mainframe)
Dimensions (W x D x H)	22.8"x24.4"x10.2"
Weight	Less than 55lbs

LCIT – PB3010	
Paper Size	8 ½”x11” LEF (LT)
Paper Weight	16-57.5lbs / 60-216g/m^2
Paper Capacity	2,000 sheets (1,000 sheets x 2 with 80g/m^2 paper)
Power Consumption	Less than 50W (Power is supplied from mainframe)
Dimensions (W x D x H)	22.8”x24.4”x10.2”
Weight	Less than 55lbs

1000 Sheet Booklet Finisher - SR3000		
Paper Size	Proof Tray	5 ½”x8 ½”LEF/SEF (HLT) – 11”x17” (DLT), 12”x18”
	Shift Tray	5 ½”x8 ½”LEF/SEF (HLT) – 11”x17” (DLT), 12”x18”
Paper Weight	Proof Tray	52-105g/m^2 / 14-28lbs
	Shift Tray	52-256g/m^2 / 14-68lbs
Stack Capacity	Proof Tray	100 sheets 8 ½”x11” or smaller 80g/m^2 / 20 lbs 50 sheets 8 ½”x14” or larger 80g/m^2 / 20lbs
	Shift Tray	1000 sheets 8 ½”x11”or smaller 80g/m^2 / 20 lbs 500 sheets 8 ½”x14” or larger 80g/m^2 / 20lbs
	Normal Staple Sort	LT LEF: 20 –100 sets (50 – 10 sheets/set) 100 sets (2 – 9 sheets/set) LT SEF: 10 - 50 sets (50 - 10 sheets/set) 100 sets (2 – 9 sheets/set) LG, DLT: 10 - 50 sets (30 – 10 sheets/set) 50 sets (9 – 2 sheets/set)
	Saddle Stitch Staple Sort	25 sets (5 sheets/set, LT) 20 sets (2 – 5 sheets/set, all size for saddle stitch) 10 sets (6 – 10 sheets/set, all size for saddle stitch)
Staple Capacity	Normal Staple	50 sheets (8 ½”x11” or smaller 90g/m^2 / 24 lbs) 30 sheets (8 ½”x14” or larger 90g/m^2 / 24lbs)
	Saddle Stitch Staple	10 sheets (80g/m^2 / 20 lbs)
Staple Paper Size	Normal Staple	8 ½”x11” (LT) – 11”x17”(DLT)
	Saddle Stitch Staple	8 ½”x11” (LT) SEF, 8 ½”x14” (LG) SEF, 11”x17”(DLT) SEF
Staple Paper Weight	Normal Staple	17-24lbs / 64-90g/m^2
	Saddle Stitch Staple	17-24lbs / 64-90g/m^2
Staple Position		1 staple / 2 positions 2 staples / 3 positions
Staple Needle Capacity		5,000pcs. /cartridge
Punch unit (Optional)	2 Hole	[Paper size] SEF: HLT – DLT LEF: HLT, LT [Paper Weight] 14 – 43 lbs/ 52-163g/m^2
	3 Hole	[Paper size] SEF: DLT, LEF: LT [Paper Weight] 14 – 43 lbs/ 52-163g/m^2
Power Consumption		60W
Dimension (W x D x H)		21.1”x23.6”x36.6”
Weight		Approx. 105.8lbs / 48kg w/o Punch Unit Approx. 110.2lbs / 50kg with Punch Unit

500 Sheet Finisher – SR3010		
Paper Size	Stack	5 ½”x8 ½” SEF (HLT) – 11”x17” (DLT)
	Stapling	LT SEF/LEF, LG SEF, DLT SEF
Paper Weight	Stack	14-34lbs / 52-128 g/m^2
	Stapling	14-34lbs / 52-128g/m^2
Stack Capacity		500 sheets 8 ½”x11” LEF/SEF or smaller 250 sheets 11”x17”(DLT), 8 ½”x14”(LG)
Staple Capacity		30 sheets (LG, DLT) 50 sheets (LT)
Staple Position		1 staple / 2 positions 2 staples / 1 positions
Staple Needle Capacity		5,000 pieces/cartridge
Power Consumption		50W (Power is supplied from the mainframe)
Dimension (W x D x H)		16.2” x 20.5”x 10.3”
Weight		Approx. 26.5lbs

1000 Sheet Finisher - SR790		
Paper Size / Paper Weight	5 ½”x8 ½” LEF 11”x17”	14-34lbs / 52-128 g/m^2
	Stack	14-34lbs / 52-128g/m^2
Stack Capacity		500 sheet (8 ½”x11” LEF/SEF or smaller) 250 sheet (11”x17”, 8 ½”x14”)
Staple Capacity		30 sheet (with 20lbs / 80g/m^2)
Staple Paper Size		11”x17”, 8 ½”x14”, 8 ½”x13”, 8 ½”x11” SEF/ LEF
Staple Position		1 position (upper left)
Shift Tray		Standard
Power Consumption		40W (Power is supplied from the mainframe)
Dimension (W x D x H)		13.8” x 19.3”x 9.1”
Weight		Approx. 22.1lbs

Internal Shift Tray - SH3000	
Paper Size	5 ½”x8 ½” SEF – 12”x18”
Paper Capacity	250sheet (8 ½”x11” or smaller) (20lbs / 80g/m^2) 125sheet (8 ½”x14” or larger) (20lbs / 80g/m^2)
Paper Weight	14-67.3lbs / 52-253g/m^2
Power Consumption	Max. 10W (Power is supplied from the mainframe)
Dimension (W x D x H)	16.6”x18”x4.6” (Excl. projection part)
Weight	Approx. 4.4lbs

One Bin Tray - BN3000	
Bin Capacity	125 sheets with 80g/m^2 paper
Paper Size	HLT – DLT
Paper Weight	16-45lbs / 60-169g/m^2
Paper Sensor	Yes
Power Consumption	Less than 1W
Dimension (W x D x H)	18.3”x17.3”x8.6”

Supported Environment

OS	Type	PCL5c	PCL6	RPCS	PostScript3
Windows 9x/Me	-	Y	Y	Y	Y
Windows NT	WorkStation 4.0	Y *1	Y *1	Y *1a	Y *1
	Server 4.0	Y *1	Y *1	Y *1a	Y *1
Windows 2000	Professional	Y	Y	Y	Y *2
	Server	Y	Y	Y	Y *2
	Advanced Server	Y *3	Y *3	Y *3	Y *2
	Datacenter Server	N	N	N	N
Windows XP	Professional	Y	Y	Y *4	Y *2
	Home Edition	Y	Y	Y *4	Y *2
Windows Server 2003	Standard Edition	Y	Y	Y *3	Y *2
	Enterprise Edition	Y *3	Y *3	Y *3	Y *2
	Datacenter Edition	N	N	N	N
	Web Edition	N	N	N	N
Windows Vista	Home Basic	Y	Y	Y	Y *5
	Home Premium	Y	Y	Y	Y *5
	Business	Y	Y	Y	Y *5
	Ultimate	Y	Y	Y	Y *5
	Enterprise	Y	Y	Y	Y *5

*1…Service Pack 6 or later is required.
*1a..Service Pack 6a or later is required.
*2…Adobe does not release PS driver for Windows2000 and XP. Only MS-PostScript driver is available and PPD file for MS-PS is included in the Driver CD.
*3…Cluster Server configuration is not supported.
*4…RPCS driver does not support “Fast User Switching” functions of Windows XP.
*5…PS3 driver for Windows Vista is not contained in a CD-ROM. Please download it from web site.
*6…Windows 9x/Me drivers are not available from April 2008 onwards.
*7…Windows NT4.0 driver is available only from web site and this is available only until the end of March 2008.
I) Point & Print

Point & Print

Window OS		Drivers		
Server	**Client (Push to)**	**PCL5c/6**	**RPCS**	**PS**
Windows Server 2003	XP	Y	Y	Y
	W2K Pro	Y	Y	Y
	NT4.0 WS	Y	Y	Y
	98 / Me	Y	Y	Y
Windows XP Professional	XP	Y	Y	Y
	W2K Pro	Y	Y	Y
	NT4.0 WS	Y	Y	Y
	98 / Me	Y	Y	Y
Windows2000 Professional, Server & Advanced Server	XP	Y	Y	Y
	W2K Pro	Y	Y	Y
	NT4.0 WS	Y	Y	Y
	98 / Me	Y	Y	Y
NT4.0 Workstation & Server (Intel)	XP	N	N	N
	W2K Pro	Y	N	N
	NT4.0 WS	Y	Y	Y
	98/Me	Y	Y	Y

Terminal Service and Citrix MetaFrame

Server	Driver		
	PCL5c/6	RPCS	PS
Windows Server 2003	Y	Y	Y
Windows 2000 Server	Y	Y	Y
Windows NT4.0 TSE	Y	Y	Y
Win 2003 Servers + MetaFrame	Y	Y	Y
Win 2000 Servers + MetaFrame	Y*1	Y	Y
Win NT4.0 TSE +MetaFrame	Y	Y	Y
Win 2003 Servers + Citrix PresentationServer4.0	Y	N	Y
Win 2000 Servers + Citrix PresentationServer4.0	Y	N	Y
Win NT4.0 TSE + Citrix PresentationServer4.0	N	N	N

[Operating Environments]
The following combinations of operating system and Citrix MetaFrame are supported:

[Windows NT Server 4.0 Terminal Server Edition.- with SP6 and later required]
1. Windows Terminal Service (RDP protocol)
2. MetaFrame 1.8 SP3/FR1+SP3/SP4 (ICA protocol)
3. MetaFrame XP 1.0 SP1/SP2/FR1 (ICA protocol)

[Windows 2000 Server /Advanced Server -]
1. Windows Terminal Service (RDP protocol)
2. MetaFrame 1.8 SP3/FR1+SP3/SP4 (ICA protocol) *1
3. MetaFrame XP 1.0 SP1/SP2/SP3/SP4/FR1/FR2/FR3 (ICA protocol)
4. MetaFrame PresentationServer3.0
5.Citrix PresentationServer4.0 *2

[Windows 2003 Server]
1. Windows Terminal Service (RDP protocol)
2. MetaFrame XP 1.0 SP4/FR3 (ICA protocol)
3. MetaFrame PresentationServer3.0
4.Citrix PresentationServer4.0 *2

*1: PCL mono-drivers do not support MetaFrame1.8 + SP3 Environment. Only mini-driver support Meta1.8+SP3 Environment.
*2: Only PCL/PS drivers are tested under this environment.

Note
Even though "Yes" is put in the cell, there is a case driver is not supported under the combination of FR and Service Pack of MetaFrame.

Mac OS Environment

	PostScript3	Printer Utility for MAC
Mac OS 8.6 or later, Mac OS X classic	Y	Y
Mac OS X Native: v. 10.1 or later *1	Y	Y*2

*1: Mac OS X v.10.0.x is not supported.
*2: Mac OS X v.10.2.0 is not supported.

SAP R/3 Environment (Device type / Barcode & OCR Package

Supported environments	R/3 version	3.x or later, mySAP ERP2004 or later
	Platform	Independent
	PDL	PCL5e/PCL 5c
	Character Set	Latin 1(Western European), Latin 2 (Eastern European)
	Localization	English only
Supported features	i.e.: Input/Output Bin, Duplex, Stapling, Punching, Resolution, Collation, EconoMode/TonerSaving, Smoothing, Page Protect, Auto Tray Change/Opt Tray select	
Supported Barcode & OCR Fonts* (* BOP will be procured locally.)	Barcode Fonts (Support Latin 1 only)	Code 128, Code 39, Code 93, Codabar, 2 of 5 interleaved/Industrial/Matrix, MSI, USPS, UPC/EAN
	OCR Fonts	OCR A, OCR B

Printer Driver Specifications

Features	PCL5c/ 6	RPCS	PostScript3				
			Windows 9x / Me	Windows NT4	Windows 2000 / XP	Mac OS 8.6-9.2	Mac OSX
Send to Job Binding	N	Y	N	N	N	N	N
Send to Document Server	Y	Y	Y	Y	Y	Y	Y*1
Sample Print	Y	Y	Y	Y	Y	Y	Y*1
Locked Print	Y	Y	Y	Y	Y	Y	Y*1
Hold Print	Y	Y	Y	Y	Y	Y	Y*1
Stored Print	Y	Y	Y	Y	Y	Y	Y*1
Stored Print (Shared)	Y	Y	N	N	N	N	N
Store and Print	Y	Y	Y	Y	Y	Y	Y*1
Store and Print (Shared)	Y	Y	N	N	N	N	N
Reduce/Enlarge (Zoom/Scaling)	Y*2	Y	Y	Y	Y	Y	Y
Reduce/Enlarge Centering	N	Y	N	N	N	N	N
Fit to Paper size	Y	Y	Y	Y	Y	Y	Y

			PostScript3				
Unauthorized Copy Control	N	Y	N	N	N	N	N
Layout (N-up)	Y	Y	Y	Y	Y	Y	Y
Poster	N	Y	N	N	N	Y	N
Duplex	Y	Y	Y	Y	Y	Y	Y
Booklet1	N	Y	N	N	N	N	N
Booklet2 (Magazine)	Y	Y	N	N	Y	N	N
Non-Reduction Booklet	Y	Y	N	N	N	N	N
Watermark	Y	Y	Y	Y	Y	Y	Y
Overlay	N	Y	N	N	N	N	N
Header/Footer	N	Y	N	N	N	N	N
Adjust image position	N	Y	N	N	N	N	N
Binding Margins	N	Y	N	N	N	N	N
Collate	Y	Y	Y	Y	Y	Y	Y
Punch	Y	Y	Y	Y	Y	Y	Y
Staple	Y	Y	Y	Y	Y	Y	Y
Cover sheet(Front Cover)	Y	Y	Y	N	N	N	N
Front and Back Cover	Y	Y	N	N	N	N	N
Slip Sheet	Y	Y	Y	N	N	N	N
Chaptering	Y	Y	N	N	N	N	N
Rotate by 180 degrees	Y	Y	Y	Y	Y	N	N
Reverse Order Print	N	Y	N	N	Y	Y	Y
Do not print Blank pages	Y*3	Y	N	N	N	N	N
Dithering	Y	Y	Y	Y	Y	Y	Y
Toner Saving	N	Y	Y	Y	Y	Y	Y
Black Over Print	Y	Y	Y	Y	Y	Y	Y
CLP Color Simulation	Y	Y	Y	Y	Y	Y	Y
Quality	N	Y	N	N	N	N	N
Speed	N	Y	N	N	N	N	N
High Speed	N	Y	N	N	N	N	N
User ID	Y	Y	Y	Y	Y	Y	Y*1
User Code	Y	Y	Y	Y	Y	Y	Y*1
User Authentication	Y	Y	N	N	N	N	N
Encryption/Encoding	Y	Y	N	N	N	N	N
User Defined Pages	Y	N	N	N	N	N	N
Mirror Image Print	N	N	Y	Y	Y	Y	N
Negative Image Print	N	N	Y	Y	Y	Y	N
Edge to Edge Print	Y	Y	Y	Y	Y	Y	Y
Limitation setting	Y	Y	N	N	N	N	N

Y: supported
N: not supported
*1: Available with MAC OS X 10.2. or later
*2: “Centering” feature cannot be selected from PCL driver. However PCL has this feature as the original function.
When printing with Reduce/Enlarge (Zoom) feature of PCL driver, the output will be automatically centered by the PCL’s original centering function.
*3: This feature cannot be selected from printer driver. But enables to set to “On” in “PCL setting “of MFP.

Special Paper

Type	Brand	Name	Weight	Mode	Size	Tray	Bypass Tray	Duplex	Paper Feed	Image	Total	Note
Thick Paper	Hammermill	Color Copy Cover	60 lb. Cover 162g/㎡	Thick 1	LT	OK	OK	OK	A	A	A	
					DLT	OK	OK	OK	A	A	A	
					12x18	NG	OK	NG	A	A	A	
	Hammermill	Color Copy Cover	80 lb. Cover 216g/㎡	Thick 2	LT	NG	OK	NG	A	A	A	
					DLT	NG	OK	NG	A	A	A	
					12x18	NG	OK	NG	A	A	A	
	Wausau	Color Copy	80 lb. Cover 216g/㎡	Thick 2	LT	NG	OK	NG	B	A	B	1
					DLT	NG	OK	NG	B	A	B	2
	Springhill	Index	110 lb Index 199g/㎡	Thick 2	LT	OK	OK	NG	A	A	A	
					DLT	OK	OK	NG	A	A	A	
Coated Paper	Hammermill	Color Copy Gloss	32 lb. Bond 120g/㎡	Thick 1	LT	OK	OK	OK	B	A	B	3
					DLT	OK	OK	OK	B	A	B	
					12x18	NG	OK	NG	B	C	B	
	Wausau	Exact Gloss Coated (Text)	80 lb. Text 118g/㎡	Middle Thick	LT	OK	OK	OK	A	A	A	
					DLT	OK	OK	OK	A	A	A	
	Wausau	Exact Matt Coated (Text)	80 lb. Text 118g/㎡	Middle Thick	LT	OK	OK	OK	A	A	A	
					DLT	OK	OK	OK	A	A	A	
Adhesive	Avery	White Mailing Labels 05160	—	Thick 1	LT	OK	OK	NG	A	A	A	
		White Mailing Labels 05163	—	Thick 1	LT	OK	OK	NG	A	A	A	
Envelope	Quality Park	Business Envelope (#qua 11112 / 11184)	—	Thick 2	COM10	NG	OK	NG	A	A	B	4
	Westvaco	Laser Quality Envelopes (#C0125 / C0130)	—	Thick 2	COM10	NG	OK	NG	A	A	B	4
					Monarch	NG	OK	NG	A	A	B	4
Tab	Blanks USA	1/2/3/4/5/6/7/8/9/10 /11/12/15Tab	110 lb. Index 199g/㎡	Thick 2	11x9	NG	OK	NG	C	B	B	5

Rating

A: Recommended
B: OK, see notes
C: Not recommended

Notes:
1. If misfeeds occur try turning the paper upside down or LEF.
2. If misfeeds occur try turning the paper upside down.
3. If misfeeds occur due to paper slipping do not use.
4. To avoid wrinkles feed with flap opened LEF.
5. Input the paper size including tab from custom size setting.

Non-Recommended Paper

- Paper for inkjet printers
- T-shirt Transfer material
- Thermal fax paper
- Art paper
- Aluminum foil
- Carbon paper
- Conductive paper
- Paper with perforated lines
- Hemmed-edge paper
- Tab stock
- Bent, folded, or creased paper
- Perforated paper
- Slippery paper
- Torn paper
- Rough paper
- Thin paper with little stiffness
- Paper with a dusty surface

Reliability Information

	B230	B237	D042
ACV	5k prints	8k prints	3k prints
Color Ratio	30%	30%	20%
Max CV (color ratio: 30%)	20k prints	20k prints	20k prints
PM Interval	80k prints	80k prints	80k prints

Durability Color Ratio: 80%

Durability: References machine life and is unaffected by color ratio
30% color ratio is used to calculate supply yields. (B230/B237)
20% color ratio is used to calculate supply yields. (D042)

Note: All items above are calculated based on the machine ACV assuming the following:

- PM is regularly performed
- Recommended paper types are used
- The machine is installed under operable environmental conditions

PM Unit Yield Depending On The P/J

The yield of the PM units is affected by the number of prints per job (P/J). This is because the actual lifetime of these parts is determined by the number of rotations, which depends on the P/J. If the P/J is lower than the target, the number of rotations made for a page increases. This is because the machine always stops a certain (fixed) time after the last sheet is fed out, regardless of the P/J. The lower the P/J, the more revolutions per page. The table below shows the expected number of prints made for 1 P/J versus 2 P/J.

Note regarding meter charge-based contracts:

It is highly recommended to take the figures in the table below into consideration when determining click charges, since the actual number of prints that can be made with each part depends on customer usage conditions such as P/J. If, for example, the figures for 2 P/J were used to calculate click charges for customers who are using the machine at mainly 1 P/J, this can decrease potential profits gained.

Item	Number of Prints (k prints)	
	1P/J	2P/J
Black PCU	54.9	80.0
Color PCU	50.8	80.0
Black Developer	159.0	160.0
Color Developer	113.1	160.0
Black Development Unit	318.1	320.0
Color Development Unit	226.3	320.0
Image Transfer Belt Unit	**415.0**	**600.0**
Image Transfer Belt Cleaning Unit	110.7	160.0
Paper Transfer Roller Unit	166.0	240.0
Fusing Unit	107.4	160.0

The expected yield of all PM parts is calculated assuming the following conditions:

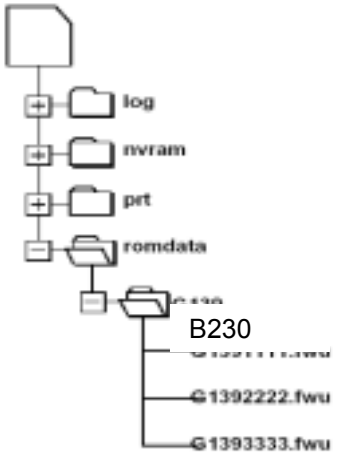
A4 (LT) long-edge feed
Color ratio: 30% (for B230/B237), 20% (for D042)
Expected ACV (B230: 5k, B237: 8k, D042: 3k)

Firmware Update

Firmware is updated via a SD Card inserted into Slot 3 on the right side of the controller box or Remote. The table below lists the firmware names used.

NOTE: When the SD card method is used the Operation Panel may be blank for 5 minutes or more after the Please Wait indication has cleared.

Firmware	Function	Location of firmware	Message Displayed
Engine	Printer engine control	BICU Flash Rom	Engine
System/Copy Application	Operating system	Flash ROM on the Controller Board	System/Copy
Netfile Application	Feature application	Printer/scanner SD card	NetworkDocBox
Printer Application	Feature application	Printer/scanner SD card	SD Printer
Scanner Application	Feature application	Printer/scanner SD card	SD Scanner
Fax Application	Feature application	Flash ROM on the Controller Board	Fax
NIB	Network Interface	Printer/scanner SD card	Network
Operation Panel	Panel control	Operation Panel	OpePanel
Fax FCU	Fax control	FCU	GWFCU 3-3
Language	Language firmware. Two languages can be selected from 16.	Operation Panel	LANG
WebDocBox	Document Server application	Printer/scanner SD card	Web Uapl
WebSys	Web Service application	Printer/scanner SD card	Web Support
PS3	Page description language (PostScript3)	PS3 SD card	Option PS3
DESS	Security control	Printer/scanner SD card	Security Module
ARDF	ARDF control	ARDF	ADF
Finisher (B793 only)	Finisher control	Finisher (B793 only)	Finisher



SD Card
File Arrangement

1.Create a folder named *romdata*

2. Inside the *romdata* folder create a folder named B230

3. Firmware to be updated is placed inside of the B230 folder

Note: If any other folders are utilized such as Log, or NVRAM, they should be placed outside of the *romdata* folder

Counter Specifications

Development Counter (default)

Application	Mode		BK Counter	CMY Counter
Copy	ACS	Sensed as Color	+1	+3
		Sensed as B&W	+1	
	Full Color		+1	+3
	B&W		+1	
	Single Color	Basic Color	Same as the number of Toner(s) which is (are) actually used *	
		User Color	+1	+3
	Two Color	Basic Color	Same as the number of Toner(s) which is (are) actually used *	
		User Color	+1	+3
**Print	Color	Sensed as Color	+1	+3
		Sensed as B&W	+1	
	B&W		+1	
Fax	Black		+1	

- How to count up Basic Color in Single Color / Two Color mode.

Toner(s) which is (are) actually used	BK Counter	CMY Counter
BK + one of CMY	+1	+1
BK + two of CMY	+1	+2
BK + C + M + Y	+1	+3
One of CMY		+1
Two of CMY		+2
C + M + Y		+3

Copy/Print count

Application	Mode		FC Copy Counter	BK Copy Counter	FC Print Counter	BK Print Counter	FC Total Counter	BK Total Counter
Copy	ACS	Sensed as Color	+1				+1	
		Sensed as B&W		+1				+1
	Full Color		+1				+1	
	B&W			+1				+1
	Single Color		+1				+1	
	Two Color		+1				+1	
**Print	Color	Sensed as Color			+1		+1	
		Sensed as B&W				+1		+1
	B&W					+1		+1
Fax	Black					+1		+1

Total Counter decimal places: 7

****Note:** For jobs printed in Photographic or DTP (Desktop Publisher) modes, Black text will be processed as process black (CMY). These copies will be counted as color output.

PM Parts

Part Number	Description	Q'ty/ Unit	PM Interval (Prints)	Unique or Common
PCU				
B2232042	Drum Unit - Bk	1	80k	C B224
B2232043	Drum Unit - C	1	80k	C B224
B2232044	Drum Unit - M	1	80k	C B224
B2232045	Drum Unit - Y	1	80k	C B224
B2309640	Developer - Bk	1	160k	C B224
B2309670	Developer – M	1	160k	C B224
B2309660	Developer – C	1	160k	C B224
B2309680	Developer – Y	1	160k	C B224
B2233013	Development Unit - Bk	1	320k	C B224
B2233023	Development Unit - M	1	320k	C B224
B2233033	Development Unit - C	1	320k	C B224
B2233043	Development Unit - Y	1	320k	C B224
B2232016	PCU: Bk	1		C B224
B2232017	PCU: M	1		C B224
B2232018	PCU: C	1		C B224
B2232019	PCU: Y	1		C B224
Transfer				
B2236023	Image Transfer Cleaning Unit	1	160k	C B224
B2376261	Transfer/Separation Unit	1	240k	U
Fusing				
B2384070	Fusing Belt	1	160k	U *1
AE010054	Fusing Roller	1	160k	U *1
AE012030	Heating Roller	1	160k	U *1
AE040064	Belt Tension Roller	1	160k	U *1
AE040065	Oil Supply Roller	1	160k	C B224
AE040066	Cleaning Roller	1	160k	C B224
AE031061	Front Bushing - Oil Supply Roller	1	160k	C B224
AE031062	Rear Bushing - Oil Supply Roller	1	160k	C B224
AE032030	Bushing - Pressure Roller	2	160k	U *1
AE020156	Pressure Roller	1	160k	U *1
AE031045	Bushing - Belt Tension Roller	2	160k	U *1
AE030065	Ball Bearing - Fusing Roller	2	160k	U *1
AE030066	Ball Bearing - Pressure Roller	2	160k	U *1
AE030067	Ball Bearing - Heat Roller	2	160k	U *1
AB013722	Gear - Fusing Roller	2	160k	U *1
AB014278	Idle Gear - Pressure Roller	1	160k	U *1
Other				
B2236542	Waste Toner Bottle	1	160k	C B224
B2231348	Dust Filter	2	160k	C B224

Notes:

1. These items are available as a PM kit. PN: PMB230160K
2. The yield figures in the above table are based on the following conditions.
   - LT long-edge feed
   - 5% image coverage ratio
   - 2 print/job
3. The Development Unit replacement at 320k does not require developer. It is pre-loaded at the factory in a new unit.
4. Developer is pre-installed at the factory in new machine installs.

Others

Part Number	Description	Q'ty/ Unit	PM Interval (Prints)	Unique or Common
Transfer				
B2236022	Image Transfer Unit	1	360k	C B224

Notes:

1. The actual life of the Color Development Units depends on the color ratio usage. Therefore, the Color Development Units are treated as EM parts.
2. The Image Transfer Belt Unit is considered an EM part since its expected lifetime is relatively long
3. The Development Unit replacement at 320k does not require developer. It is pre-loaded at the factory in a new unit.

Special Tools

Part Number	Part Name	Q'ty
B6455010	SD Card	1 each
B6456705	PCMCIA Card Adapter	
B6456820	USB Reader/Writer	
VSSM9000	Digital Multimeter – FLUKE87	
G021 9350	Loop-back Connector – Parallel	
C401 9503	20X Magnification Scope	
A2579300	Grease Barrierta – S552R	
52039502	Silicon Grease G-501	
A0929503	C4 Color Test Chart (3 pcs/set)	
A0069104	Scanner Positioning Pin (4pcs/set)	
B6795100	Plug - IEEE1284 Type C	
B1329700	Lubricant Powder	

Note: The Loop Back Connector Parallel requires Plug IEEE1284 Type C

Documentation

Description	Order Number
Service Manual	002722MIU
Parts Catalog	002723MIU

Contact Information

Resources	Contact
Technical Services Call Center (Hotline)	Ricoh: (800) 537-4264 Savin/Gestetner: (800) 291-6044
Application Help Desk (Software Issues) Phone Card order numbers	Ricoh: 2 Calls 000781MIU, 5 calls 000900MIU Savin: 2 Calls 12992, 5 Calls 12993 Gestetner: 2 Calls 12994, 5 Calls 12995
RFG-eSource	http://www.rfg-esource.com/
Technology Solutions Center Web Site	http://www.tscweb.net
Savin iLINC Web Site	http://w3.savin.com
Gestetner ILINE Web Site	http://w3.gestetnerusa.com
Headquarter Web Sites	Ricoh Corporation: http://www.ricoh-usa.com Savin Corporation: http://www.savin.com Gestetner Corporation: http://www.gestetnerusa.com Lanier Corporation: http://www.lanier.com
National Reclamation Center	(973) 808-0450 / http://www.nrc-usa.com
Material Safety Data Sheets	(800) 336-MSDS (6737)
Eastern Training Center	(973) 882-2200 http://www.ricohuniversity.com
Western Training Center	(714) 566-3692
Southeastern Training Center	(678) 824-3000

RICOH UNIVERSITY
Learning ◆ Knowledge ◆ Performance

To: All Authorized Business Partners **Date:** September 5th, 2007

Subject: Technical Training Announcement

New Product: D042 Color MFP

Training Format: Auto-Certification

Product Code	Lanier	Ricoh	Savin
D042	LD420c	Aficio MP C2000	C2020

The Ricoh Family Group is pleased to announce the release of the D042 B2C Color Copier/MFP.

In an effort to continue to hold the #1 position in the market, Ricoh has refined the B2C product line for the general office. The D042 is designed to offer every feature that is required for MFPs in the general office, such as advanced document security with networking compatibility, the latest in security and management tools, and various finishing options, including a booklet finisher and hole punch unit.

Training Prerequisites:

Product Code	Gestetner	Lanier	Ricoh	Savin
B222	DSc535	LD435c	Aficio MP C3500	C3535
B224	DSc545	LD445c	Aficio MP C4500	C4540
B230	DSc525	LD425c	Aficio MP C2500	C2525
B237	DSc530	LD430c	Aficio MP C3000	C3030
G133	C7640nD	LP440c	SP C811DN	CLP240D

Due to the extensive similarities between the D042 and the B222/B230 series, service professionals currently certified on the B222/B230 series will be automatically certified on the D042 upon download and review of ***Technical Service Bulletin B230/B237/D042 – 025*** (rfg-eSource Content ID# rfg029215) and ***Technical Service Bulletin B230/B237/D042 – 024*** (rfg-eSource Content ID# rfg029172). These bulletins provide replacement pages for the existing B230/B237 service manual and parts catalog. It is strongly recommended that all the information provided in these bulletins be thoroughly reviewed by the service professional prior to performing any service. A minimum of 2 hours should be scheduled to properly review the new materials.

NOTE: Due to the extensive documentation and training similarities between the D042 and the B222/B230 series, all D042 information has been integrated into the existing B222/B230 series Blended Learning training program.

RFG-eSource users may obtain the updated B230/B237/D042 documentation by performing a search using the following content ID numbers:

Description	Content ID
B230/B237/D042 Service Manual	rfg022894
B230/B237/D042 Parts Catalog	rfg022870

Service professionals *not* eligible for auto-certification may achieve certification on the D042 by successfully completing the B222/B230 Blended Learning Part I training course, and then attending and completing the B222/B230 Blended Learning Part II training course.

If you have any questions regarding this or any other training, please visit the Ricoh University home page at www.ricohuniversity.com or contact Ricoh University at (973) 882-2200.